liver, and these studies have confirmed the beneficial results previously reported. With the restoration of peacetime conditions, this phase of hepatic disease investigation will be more vigorously pursued.

The work with progressive muscular dystrophy has been gradually curtailed, and the results of previous investigations more thoroughly analyzed. With respect to creatine and creatinine, it has been shown that the rate of urinary excretion of the latter is an index of the amount of functioning muscle; hence it can be used as a measure of improvement or regression in this disease. A further study of intermediate metabolism of these substances in these patients has shown that the increased excretion of creatine in the urine is not due to increased synthesis of this substance but to the result of incomplete metabolism in the diseased muscles.

Dr. Gilder has shown in a comparative study of the excretion of 17-ketosteroids by patients with progressive muscular dystrophy and by control children of comparable age that the former excrete greater amounts than the latter under conditions of similar physical activities and similar diets, and also when the groups receive comparable amounts of testosterone propionate. The reason for these differences is as yet undetermined.

RESPIRATORY DISEASES AND IMMUNOCHEMISTRY

Dr. Avery and associates

Continuing their researches on the nature of the substance that effects the transformation of one type of pneumococcus to another, a substance which is apparently a nucleic acid of the desoxyribose type, these investigators have prepared a relatively pure enzyme which specifically destroys nucleic acid from calves' thymus and likewise destroys the transforming substance. Thus the nucleic acid nature of this transforming

agent is more definitely established. During these investigations it was found that the activation of the enzyme which destroys the transforming agent could be inhibited by sodium citrate; and in the light of this knowledge a much larger amount of the transforming agent can be prepared from pneumococcal cells by dissolving them with bile salts in the presence of sodium citrate. Further studies of the factors responsible for the destruction of the transforming agent have led to the development of methods for the more definite control of the reaction whereby this transformation is brought about; and the various steps in this reaction are now definable in biochemical terms.

Dr. Horsfall and associates

Because most of the hospital beds have been occupied by Naval patients with infectious hepatitis, only during the first half of 1944 were patients with respiratory diseases admitted; but sputa and throat washings, together with sera obtained from patients previously investigated, have been suitably stored for study. The clinical records and laboratory data from 106 patients with primary atypical pneumonia have given adequate material for analysis. In addition, members of Dr. Horsfall's staff have helped to care for patients with infectious hepatitis and to make certain examinations of the materials derived from those patients, particularly in so far as concerns the infectious nature of that disease. The analysis of the atypical pneumonia patients has shown that this disease varies greatly in its manifestations and that only from a compilation of symptoms, physical signs, and laboratory data, particularly roentgenograms, could a correct diagnosis be reasonably assured.

Of greater significance were data gathered from both patients and normal persons, as well as from experimental animals, which indicate that